

CITY OF NEWPORT
TASK ORDER NO. 10
TO ENGINEERING SERVICES AGREEMENT
FOR GEOTECHNICAL ENGINEERING SERVICES
PROJECT: GOLF COURSE DRIVE WATER SYSTEM IMPROVEMENTS

This TASK ORDER NO. 10 to the Engineering Services Agreement dated Aug. 29, 2011, hereinafter called Agreement, between the City of Newport, (CITY), and Foundation Engineering, Inc., (ENGINEER).

A. SCOPE OF SERVICES

CITY agrees to utilize the services of ENGINEER and ENGINEER agrees to perform geotechnical engineering services as defined within the scope of work.

This PROJECT will include the following:

1. (refer to attached FEI Proposal 161086 dated August 17, 2016).

B. CITY'S RESPONSIBILITIES

CITY to provide ENGINEER with the following information:

1. CITY shall assign appropriate reviewers to the project and compile and provide a single consolidated, coordinated, legible, and internally consistent copy of written review comments to Consultant for all draft documents and work products, as appropriate.
2. CITY shall provide timely review of submitted products (2-week turnaround), as appropriate.

C. COMPENSATION

1. CITY shall pay ENGINEER according to the fee schedule set forth in Exhibit A to the Engineering Services Agreement.
2. Services provided under this Task Order shall not exceed twenty thousand and sixty-five dollars (\$20,065).

D. MISCELLANEOUS

All terms and conditions of the Engineering Services Agreement apply to this Task Order as though fully set forth therein. In the event of a conflict between this Task Order and the Engineering Services Agreement, the terms of this Task Order shall apply.

The parties do mutually agree to all mutual covenants and agreements contained within this Task Order No. 10.

CITY OF NEWPORT

By: 

Title: City Manager

Date: 9/7/16

Foundation Engineering, Inc.

By: 

Title: President

Date: 9/7/16



Jayson Buchholz, P.E.
Senior Project Manager
City of Newport
169 SW Coast Highway
Newport, Oregon 97365

August 17, 2016

**Golf Course Road
Proposal for Geotechnical Services
Newport, Oregon**

Proposal 161086

Dear Mr. Buchholz:

Please consider this letter as our proposal to provide the requested geotechnical services for the above-referenced project. Details of our proposed scope of work, estimated costs and schedule are summarized below.

BACKGROUND

Golf Course Road is a relatively narrow, $\pm 2,000$ -foot long road extending along the south side of the Agate Beach Golf Course in Newport, Oregon. Most of the road is paved with asphaltic concrete (AC), but the eastern ± 400 feet of the road is currently gravel-surfaced.

The City of Newport (City) plans to widen and pave the road with AC. Portions of the alignment extend along sloping terrain, which will require three new retaining walls to accommodate the widening. It is anticipated the walls will include:

- a soldier pile wall retaining a cut slope
- a soldier pile wall retaining fill
- a block wall or mechanically-stabilized earth (MSE) wall retaining fill

The wall heights are expected to be ± 12 feet or less.

The City is the project owner and Civil West Engineering is the civil designer. The City requested Foundation Engineering provide a proposal and cost estimate to complete a geotechnical investigation for the project.

WORK SCOPE

Field Exploration

The field exploration will include a combination of pavement cores, borings, and hand auger explorations. The pavement cores and borings will be completed using a relatively small, trailer-mounted drill rig. This equipment was selected (in lieu of a larger truck-mounted drill) to accommodate the limited site access and minimize traffic impacts. We have assumed the drill cuttings (which are anticipated to be limited) can be left on site or dumped at a nearby designated location.

Up to 15 explorations are planned, but the actual number of explorations and their locations will depend on access, utility conflicts and the need to maintain vehicular traffic. The exploration locations will be coordinated with the City prior to initiating the field work.

Since the project is located on a low volume, low speed road, we assume traffic control will be limited to providing warning signs and cones designating the work area and flagging will not be required. We assume a work in right-of-way permit will be required, but no permit fees will be required. Details of the proposed work plan are provided below.

Pavement Cores

We plan to use the drill to core the pavement at three locations along the roadway. At each location, a 5-inch diameter core drill will be used to core the AC. Drilling below the AC will be completed using a solid-stem auger and will extend to depths of ± 3 to 5 feet. The core holes will be logged to delineate the thickness and composition of the pavement and base rock and evaluate the subgrade conditions. The pavement core and subgrade samples will be retained for possible laboratory testing and examination in our office. Ground water infiltration, if encountered, will be noted.

Dynamic cone penetrometer (DCP) testing will be performed on the base rock (if sufficiently thick) and subgrade in each pavement core. The DCP test consists of driving the cone of the apparatus into the subgrade and/or base rock and recording the penetration versus blow count (mm/blow) as the DCP value. Available correlations with DCP test results will be used to estimate in-situ subgrade resilient modulus (M_R) for pavement design.

Immediately following the completion of the explorations, the core holes will be backfilled with the excavated soils, capped with gravel and AC cold patch to match the existing pavement section. The backfill will be placed and compacted in lifts.

Wall Borings

We plan to drill two borings near each of the three proposed retaining wall locations. It will not be possible to drill on the specific wall alignments due to the sloping terrain and limited access. Therefore, the borings will be drilled on the shoulder of the road, as close as practical to the wall locations. Information from the wall borings will supplement the pavement cores, where the borings are completed in the roadway.

We anticipate drilling each wall boring to a depth of up to ± 25 feet. However, the actual depths may be adjusted depending on the subsurface conditions encountered. Disturbed samples will be obtained at 2.5-foot intervals using a split-spoon sampler as part of the Standard Penetration Test. Relatively undisturbed Shelby tube samples may also be obtained if fine-grained soils are encountered. No rock coring is planned.

Immediately following the completion of drilling, the boreholes will be backfilled with bentonite chips and capped with soil, gravel or AC cold patch to match the surrounding surface conditions.

Hand Augered Test Holes

We plan to supplement the wall borings with hand augered test holes. The test holes will be completed off of the road near the planned wall locations. We anticipate the individual test holes will extend to a depth of ± 6 to 12 feet, but their actual depths may vary depending on the conditions encountered.

The soil profiles will be logged and disturbed soil samples will be retained at selected depths for possible laboratory testing. Ground water infiltration, where encountered, will be noted. Upon completion of the explorations, the test holes will be backfilled with the excavated soil placed and compacted in lifts using the auger.

Field and Laboratory Testing

Laboratory testing will include index tests (i.e., natural water contents, percent fines and Atterberg limits) on selected samples. The test results will be used to classify the soils and estimate their engineering properties. Torvane or field vane shear tests may also be run on Shelby tube samples to establish the strength of fine-grained soils.

We plan to complete in-situ resistivity testing at the planned wall locations. These test results will be combined with laboratory pH testing on selected samples to estimate the corrosion potential of the foundation soils.

Engineering Report

We will summarize our findings in an engineering report. The report will include a description of our work, a discussion of the site conditions, and recommendations for site preparation, wall design and construction, and pavements. The report will include the logs for the explorations and a summary of laboratory test results. We anticipate the report will address the following:

- ◆ Site preparation
 - stripping and grubbing
 - removal/mitigation of fill or unsuitable soil
 - subgrade preparation, compaction and stabilization
 - construction access and wet weather construction (if appropriate)

- ◆ Retaining walls
 - discussion of retaining wall options
 - wall set-back
 - slope stability
 - lateral earth pressures
 - allowable bearing pressures
 - settlement (total and differential)
 - backfill materials
 - drainage

- ◆ Pavement design and construction
 - subgrade preparation
 - minimum flexible section

ESTIMATED COSTS

Table 1 provides a breakdown in the estimated costs for the proposed scope of work. These costs are based on our normal hourly rates shown on the attached information sheet.

Table 1. Estimated Costs

ITEM	ESTIMATED COSTS
Field exploration	\$5,050
Laboratory testing	\$1,075
Engineering analysis and report preparation	\$7,770
Reimbursable expenses	\$370
Foundation Engineering subtotal	\$14,265
Drilling subcontractor fees	\$5,800
TOTAL	\$20,065

This total represents our best estimate of the project costs. We will notify you immediately following the field work in the event we encounter unanticipated soil conditions that would require modifying our proposed scope of work.

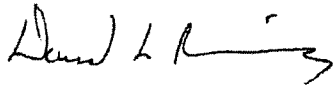
SCHEDULE

We are prepared to begin work upon notification to proceed. Our first task will be to locate underground utilities and coordinate the field exploration with the City. Based on the driller's current schedule, we anticipate a drill can be available within ± 3 weeks of notice to proceed. We anticipate the field work can be completed with 2 to 3 days on site. An additional ± 3 weeks will be required for the laboratory testing, analysis and report preparation. We will provide interim information to the City and design team as it becomes available.

We appreciate the opportunity to submit this proposal and look forward to working with you on this project. Please do not hesitate to call if you have any questions regarding the proposed scope of work, estimated costs, or schedule.

Sincerely,

FOUNDATION ENGINEERING, INC.



David L. Running, P.E., G.E.
Senior Engineer

DLR/wg
Attachment



Billing Rates and General Information

Effective July 1, 2016

Hourly Rates:

Principal Engineer ¹	\$180
Senior Engineer	\$150
Senior Project Engineer	\$132
Project Engineer	\$123
Project Geologist	\$120
Staff Engineer/Geologist	\$96
Clerical	\$62

Reimbursable Expenses:

Mileage ²	\$0.54/mile
Copies/Fax	\$0.30/page
Report Binding	\$10/report
Other Expenses	Cost plus 15 %

Per Diem:

Half Day	\$15
Full Day	\$40
Overnight	\$135

Field Charges³:

Misc. Project Supplies	Cost plus 15 %
Traffic Control Signs/Cones	\$50/day
Photoionization Detector (PID)	\$210/weekly
Inclinometer	\$75/half day \$150/full day
Methane Meter	\$190/weekly
pH Meter	\$10/day
Resistivity Meter	\$25/day
Water Level Indicator	\$20/project
Dynamic Cone Penetrometer	\$25/day
Disposable tips	\$5/each
Mini-troll	\$50/monthly
Dataloggers	\$50/monthly
Shelby Tubes	\$25 each
Sample Storage	\$150/per year

Notes:

¹Legal and expert witness consultation by Principal Engineer billed at hourly rate of \$200.

²Mileage billed at current ODOT approved rates and may differ than the rates listed above.

³Charges subject to change depending upon type and length of project.

Subcontractors (drillers, backhoe, flaggers, concrete cutters, etc.) billed at direct cost plus 15 %.

Federal ID #: 93-1124584

Oregon Registry #: 366331-88

Rev. 6/27/16